

In the claims:

1. (Currently amended) A reflector for a luminaire comprising a shaped wall having a plurality of longitudinal main reflecting prisms circumferentially arranged on said shaped wall in a dome-like configuration and extending substantially the height of said shaped wall, each of said main reflecting prisms having a peak with a predetermined degree of taper positioned between two valleys to provide a light reflection pattern, and a plurality of transition reflecting prisms interleaved with said main reflecting prisms, each of said transition reflecting prisms having a peak between two valleys with a first portion thereof having substantially said predetermined degree of taper between two valleys over a major part of said shaped wall to provide said light reflection pattern, wherein a second portion of the peak of each transition prism is contiguous with said first portion and transitions into the valley of a respective main prism in a transition zone having a length that is shorter than the length of said first portion of said respective transition prism.

2. (Original) A reflector according to claim 1 wherein said main reflecting prisms and said transition prisms are configured to provide internal reflection of light emanating from an interior portion of said luminaire.

3. (Original) A reflector according to claim 1 wherein the shapes of said transition reflecting prisms outside of said transition zone are essentially the same as the shapes of said main reflecting prisms.

4. (Original) A reflector according to claim 1 wherein said shaped wall is rotationally symmetric about a longitudinal axis of said luminaire.

5. (Original) A reflector according to claim 1 wherein the length of said transition zone is less than about ten percent of the length of said shaped wall.

6. (Original) A reflector according to claim 1 wherein the length of said transition zone is less than about five percent of the length of said shaped wall.

7. (Original) A reflector according to claim 1 wherein said transition zone comprises a step.

8. (Original) A reflector according to claim 1 wherein in a cross section passing through a longitudinal axis of said shaped wall, the shape of said transition zone is one of linear, parabolic, or stepped.

9. (Original) A reflector according to claim 1 wherein in a cross section passing though a longitudinal axis of said shaped wall, the shape of said transition zone is circular.

10. (Original) A reflector according to claim 9 wherein the radius of curvature of said transition zone is about three inches.

11. (Currently amended) A method of making a mold for a reflector comprising the steps of providing a shaped wall, forming in said shaped wall a set of grooves corresponding to main prisms circumferentially arranged in said shaped wall in a dome-like configuration and having a predetermined degree of taper extending along substantially the entire length of said mold, forming in said shaped wall a set of grooves corresponding to transition prisms similar in shape to said main prisms with a portion having substantially said predetermined degree of taper and interleaved with said main prisms, said transition prisms extending along a major part of said shaped wall and less than the length of said shaped wall, and forming in said shaped wall grooves corresponding to a transition zone contiguous with said portion of said transition prisms, the length of said transition zone being less than the length of said portion set of said transition prisms.

12. (Original) A method according to claim 11 further comprising the step of providing a mold having the configuration of said shaped wall and wherein said steps of forming said prisms and said transition zone comprise steps of forming said prisms and transition zone in said shaped wall and then making a reflector by using said mold.

13. (Original) A method according to claim 12 wherein the steps of forming said main and transition prisms in said shaped wall comprise using a single cutting tool or multiple cutting tools of similar shape.

14. (Original) A method according to claim 13 wherein the step of forming said transition zone comprises moving a said cutting tool such that a peak of a transition prism merges with a valley between adjacent main prisms.

15. (Previously presented) A reflector for a luminaire comprising a wall having one end narrower than an opposite end and having a plurality of main reflecting prisms, each of which has a peak between two valleys, extending from said one end to said opposite end and having a substantially uniform configuration along said length,

and a plurality of transition reflecting prisms, each of which has a peak between two valleys, interleaved with said main reflecting prisms extending from said opposite end toward said one end and terminating at a point spaced from said one end, wherein said transition prisms and main prisms are of essentially identical configurations and contour except when the peak of each transition prism transitions into the valley of a respective main prism in a transition zone, and wherein said transition zone is shorter than the remainder of said transition prism.

16. (New) A reflector according to claim 1 wherein said transition prisms are shorter than said main reflecting prisms.